

"We may have to revise the course plan according to the countrywide reassessment to be made regarding higher education. This is expected to happen at the beginning of April. The content to be delivered is certain but the method of course delivery, the number and dates of exams, and some other details are subject to change."

Lec 1

Introduction to the course. Requirements. Dos and don'ts. Short Survey. Grading.

Lec 2

Part 1. Ch 24, Atoms in the Universe. From the Big Bang Theory to the present day. The elementary composition of the earthly world. The Anthropic Principle. What is life.

Part 2. Why we are who we are and not others. Geological eras. A little bit about linguistics. The biological triad and what it gives us for understanding the world.

Lec. 3

Ch 25, Bacteria, Archaea, and Eukaryotes. A little bioinformatics and phylogenetic. Viruses and other extracellular organisms.

Lec. 4

Part 1. Ch 25-27 Unicellular organisms. Bacteria and Archaea. Cellular Structure. Reproduction. A change in the gas composition of the planet.

Part 2. Eukaryotes - the next step in evolution. Cellular complexity, endosymbiosis. Transfer of genetic information. Plants.

Lec. 5

Ch 29 Evolution and diversity. Fungi. Antibiotics. Sexual reproduction.

Lec. 6

Part 1. Ch 30-31 Multicellular organisms. Body plans.

Part 2 Ch 32 Humans

Lec. 7 Plants. Ch 34-38

Lec. 8

Part 1 Quiz/ Ch 52 Part 2 Introduction to Evolution, What Is It and What Is It Good For?

Lec. 9

Ch 39. Animals: form and function. Organs. Physiology. Homeostasis.

Lec. 10 Ch 40. Hormones.

Lec. 11 Ch. 41. Immunology. Introduction, 2 systems of immune response.

Lec. 12 Ch 43 Challenge of reproduction. Animals.

Lec. 13

Ch. 43 Part 1. Animal development

Ch. 44 Part 2 Neuronal system: glia, neurones

Lec. 14 Ch 45. Receptors

Lec. 15

Part 1. **MIDTERM – April 10th (most likely face-to-face)**

Lec. 16

Part 1. Ch 46 Ch 52. Neuronal system: behavior

Part 2. Ch 47. Musculoskeletal system.

Lec. 17

Ch 48 Breathing: from molecules to organisms

Lec. 18

Part 1. Ch 50 Nutrition, digestion, absorption.

Part 2. Ch 49 Circulation: from molecules to organisms

Lec. 19

Ch 51. Excretion and filtration.

Lec. 20

Part 1. Ch 54. Population

Part 2. Ch 55-56 The Origin of Species, Speciation. K- R- strategies, Ballast Water and Invasive Species.

Lec. 21 Population. Aging population. What is aging and how we deal with it.

Lec 22

Part 1. Ch 26.4 Introduction to Climate Change, Ocean Acidification and Coral Reefs

Part 2. Ch 36 Potential Effects of Climate Change on Soil Biodiversity and Function, Sustainability and Sustainable Agriculture

Lec. 23 Ch 20 Can't We Just Evolve Our Way Out of This Mess?

Lec. 24 FINAL (most likely face-to-face)